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南烛一新变种

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关键词 淡红南烛

1984年6月，我们在江西分宜中国林业科学院大岗山实验局树木园意外地发现了一种花呈水红色而非白色的南烛*Vaccinium bracteatum* Thunb.，而且花冠筒也比南烛窄些，在野外是容易把它同南烛区分开的。但这些鉴别性状在蜡叶标本上就不那么显而易见了。这种淡红南烛在丘陵山坡灌丛中与白花的南烛混杂生长，两者生态爱好可能非常相似。为了弄清这两种植物在形态变异式样上的关系，我们在该山坡上50×100米的样带内圈划了一个20×50米的样地，进行了群体的随机取样。然后，根据花冠的颜色、花冠筒的直径、每一花序上花的数目，以及叶一侧边缘的锯齿数与叶长度的比值等性状对群体的70个样品进行了测量，并用形象化散点图（图1）进行变异式样的分析。结果发现淡红南烛有19个个体（占27.14%），南烛有48个个体（占68.57%），两者除了花色明显不同外，花冠筒直径的大小也有区别。为了使群体中花冠筒直径的差异得到更好的反映，我们使用了标准差的度量方法（图2）。至于每一花上序的花数和叶锯齿数与叶长之比这两个性状则未显示鉴别上的差异。同年冬季，我们还对在同一样地事先做好标记的两种乌饭树的果实作了比较，发现它们在外形和大小上都是不能区分的。

若按为大多数分类学家所掌握的分种标准，淡红南烛只够得上南烛的一个变种而难以成立新种。我们也就这样处理了。但淡红南烛的发现不仅仅是一个与分类命名有关的问题，可能也是一个植物进化的实例。首先，这两种南烛之间的遗传关系显然不仅仅是由单个等位基因之差所引起和以简单的孟德尔方式遗传的花色的差异。因为花冠筒直径大小的变异一般是个受多基因控制的数量性状，不能与花色等量齐观。当然，控制这两个性状的基因可能有关联。其次，尽管这两种南烛在野外清楚可分，但我们发现在70个样品中有3个（占4.28%）是具中间性花色的，它们的花冠筒直径大致介于两个类型之间（见图1）。这些中间性个体有可能是两种南烛杂交的产物。但从它们极其有限的数量来看，这两种同域分布（sympatric）的南烛之间杂交的成功率是很低的，说明彼此之间存在着强有力的生殖隔离机制。因此，要是按照生物学种概念(biological species

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Number of flowers per inflorescence

Diameter of corolla tube

图 1 南烛和淡红南烛的散点图，示群体中70个个体在三个变量上的相互关系

○白花；●淡红花；◐中间花色；◉两种花色重叠

Fig. 1. Scattergram showing interrelationships of three variables in a population of seventy plants of *Vaccinium bracteatum* var. *bracteatum* and var. *rubellum*.

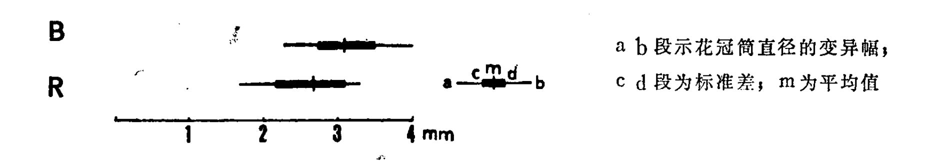


图 2 群体内南烛和淡红南烛在花冠筒直径上的变异幅（ab段），平均值(m)和标准差（cd段）。B代表南烛；R代表淡红南烛。

Fig. 2 Ranges(ab), means(m) and standrd deviations(cd) of the diameter of corolla tube of *Vaccinium bracteatum* var. *bracteatum* and var. *rubellum* in the population. B = *Vaccinium bracteatum* var. *bracteatum*; R = *V*. *bracteatum* var, *rubellum*.

concept），那么淡红南烛就不应该是南烛的一个变种，而应该是好的或比较好的种了。但这并不对传统分类的命名产生多大影响，因为它主要是以可见的外部形态性状为依据，而其它的生物学证据只作为分种时的参考。由此可见，分类学种（taxonomic species）和生物学种实在是两个不同的概念，反映了有机体类群之间变异式样中的两种彼此虽有联系，但又往往不完全一致的间断。

南烛

Vaccinium bracteatum Thunb. Fl. Jap. 156. 1784.

（1）**南烛**　原变种

var. **bracteatum**

（2）**淡红南烛**　新变种

var. **rubellum** Hsu, J. X. Qiu, S. F. Huang et Y. Zhang

A varietete *bracteato* floribus rubellis nec albis, tubo corollae angustiore (1.6–) 2—3 (–3.2) mm diametro differt.

Jiangxi（江西）: Fenyi（分宜）, in the Arboretum of Dagangshan Experiment Bureau, Chinese Academy of Forestry Science, in thicket on sunny slope, flowers pinkish, June 17, 1984, Hsu Ping-sheng（徐炳声）1706 (Type! in Herbarium of Fudan University, Shanghai). Zhejiang（浙江）: Pingyang（平阳）, Juxi（莒溪）, Banyanlu（半岩炉）, on mountain slope, by the side of rock, shrub, 2.5 m high, flowers pink, June 29, 1959, Zhang Shao-yao（章绍尧）5900.

与原变种的区别在于花淡红色而非白色，花冠筒较窄，直径（1.6–）2—3（–3.2）毫米。

A NEW VARIETY OF VACCINIUM BRACTEATUM

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Abstract In June 1984, we found a new *Vaccinium* in the mountain slope of Fenyi, Jiangxi Province. It is very similar to *V. bracteatum* Thunb., but possesses pinkish flowers with narrower corolla tube. But these two discriminating characters are not easily discernible on the herbarium specimens. Since they occur together in the same niche, they are probably very similar in ecological preferences.

A mass collection of a population was carried out in transect covering a space of 20×50 meters on the mountain slope. Quantitative measurements of two characters, namely, the diameter of corolla tube and the number of flowers per inflorescence, were made, and the resulting data were treated statistically together with the colors of flower by methods of pictorialized scatter diagram (Fig. 1) and standard deviation (Fig. 2). An analysis of these diagrams indicates that the diameters of corolla tube of the two taxa, though somewhat overlap, have different tendencies in variation pattern.

Owing to the minor morphological differences between the new taxon and *Vaccinium bracteatum*, it is appropriate to treat taxonomically the former as a variety of the latter. But the variation of diameter of corolla tube is a quantitative character usually controlled by multiple genes, and is genetically quite different from the character of flower color controlled by a single gene. Of course, the genes controlling the two characters may be associated with each other. Moreover, it has been found that 3 out of the 70 samples (4.28%) are intermediates in flower color as well as in the diameter of corolla tube (Fig. 1). These intermediates are probably hybrids between the two taxa in question. But the very low percentage of occurrence of the hybrids indicates that there is a rather strong reproductive barrier between the two parental taxa. If in the light of "biological species concept", the pinkish-flowered *Vaccinium* should, therefore, be regarded as a distinct species instead of a variety of *V. bracteatum*. Thus it can be seen that "taxonomic species" and "biological species" are really two different concepts of species. They are rather presentations of two different aspects of discontinuity in variation pattern between assemblages of organisms than real representations of species in nature.

Key word *Vaccinium bracteatum* var. *rubellum*

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